

**NAVIGATION CHARTS
KANAWHA RIVER
HUNTINGTON DISTRICT**
CORPS OF ENGINEERS, U.S. ARMY
502 EIGHT STREET
HUNTINGTON, W.VA. 25701-2070












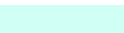



BRIEF INDEX
















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NOTE: INFORMATION SHOWN ON THIS CHART IS A GENERAL DEPICTION OF THE WATERWAY AND ADJACENT AREAS, ONLY; AND IS NOT IN ANYWISE TO BE CONSTRUED AS REPRESENTING PRECISE OR ACCURATE DIMENSIONS, PROTRAYALS, FEATURES, OR OTHER DATA. MAJOR CHANGES IN CHANNEL CONDITIONS WHICH OCCUR PRIOR TO THE NEXT ANNUAL REVISION WILL BE PUBLISHED IN "NOTICES TO NAVIGATION INTEREST" AS THEY OCCUR. THE GENERAL LOCATIONS OF AIDS-TO-NAVIGATION ARE SHOWN AS THEY EXISTED ON THE LAST EDITING DATE OF THIS BOOK. THEY MAY SUBSEQUENTLY HAVE BEEN MOVED, DESTROYED OR DISCONTINUED. THEY SHOULD IN NO EVENT BE USED TO FIX THE POSITION OF A VESSEL.





U.S. ARMY ENGINEER DISTRICT, HUNTINGTON

LEGEND

U.S. Navigation Lights	 or 
Daybeacons	 or 
Permanent type buoys:	
Can (black or green)	
Nun (red)	
Ice Pier	
Sailing Line	
Alternate sailing line	
Arrival point for lockage	
Land above project pool	
Water with less than a 9' depth at normal pool	
Water with 9' depth or more at normal pool	
Submarine cable crossing	
Submarine pipeline crossing	

Aerial crossing	
Tower	
Intake	
Diffuser Outlet Pipe	
Gage	
Docks:	
Recreation	
Commercial	
Freight terminal	
*Paved Landing	
Private	
Boat launching ramp	
Federal mooring facility	
Fleeting harbor	
Wrecks	
Restricted area, Do Not navigate in this area	

DAYMARK DESCRIPTIONS

Left Descending Bank	
 TR	Triangular shape red PASSING daymark with red reflective border.
 CR	Diamond shaped red PASSING daymark with small diamond shaped red reflectors at each corner.
Right Descending Bank	
 SG	Square shaped green PASSING daymark with a green reflective border.
 CG	Diamond shaped green CROSSING daymark with small diamond shaped green reflectors at each corner.
(D)	Oriented Downstream
(U)	Oriented Upstream

Note:
Daymark symbol shown in legend is displayed on charts only when a daymark is not accompanied with a U.S. navigation light. Daymark descriptions are given for all daymarks.

*Navigators should be aware that barges are frequently moored at this location for loading and unloading purposes even though there is no major riverside construction.

COAST GUARD JURISDICTION

Persons required by law to report to, or otherwise desire to contract the U.S. Coast Guard for assistance or guidance should contact the:

Commanding Officer Marine Safety Office U.S. Coast Guard P.O. Box 2412 1415 6th Avenue Huntington, West Virginia 25725 Telephone (304) 529-5524	Coast Guard Cutter Osage Foot of McKnown Lane Sewickley, Pennsylvania 15143 (412) 741-1180 Kanawha River
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CHARACTERISTICS OF NAVIGATION LIGHTS

Lights in the Second Coast Guard District show simple characteristics, allocated by color or other feature to the left and right descending banks, as tabulated below:

Left descending bank	
F.W. — — — — —	Fixed White
F.R. — — — — —	Fixed Red
FL(2)W5s_ 5 sec., 2 flashes — —	Group Flashing White
FL(2)R5s_ 5 sec., 2 flashes — —	Group Flashing Red
FL(2)W6s_ 6 sec., 2 flashes — —	Group Flashing White
FL(2)R6s_ 6 sec., 2 flashes — —	Group Flashing Red
IsoW — — — — —	Equal Interval White
IsoR — — — — —	Equal Interval Red
Q R — — — — —	Quick Flashing Red
IQ R — — — — —	Interrupted Quick Flashing Red.
2 F.R. — — — — —	Two Lights showing Fixed Red (this abbreviation may indicate any number or color necessary).

Right descending bank	
F.W. — — — — —	Fixed White
F.G. — — — — —	Fixed Green
FL W4s_ 4 sec. — — — —	Flashing White
FL G4s_ 4 sec. — — — —	Flashing Green
IsoW_ 2 sec. — — — —	Equal Interval White
IsoG_ 2 sec. — — — —	Equal Interval Green
Q G — — — — —	Quick Flashing Green
IQ G — — — — —	Interrupted Quick Flashing Green.
2 F.G. — — — — —	Two Lights showing Fixed Red (this abbreviation may indicate any number or color necessary).

LEGEND,
CHARACTERISTICS OF NAVIGATION LIGHTS
AND DAYMARKS DESCRIPTIONS
NAVIGATION CHARTS
GREAT KANAWHA RIVER
HUNTINGTON DISTRICT

NAVIGATION CHARTS AND NOTICES

Navigation charts show the location and identification of commercial docks, fleeting harbors and many private and public pleasure craft facilities, but may not depict the full extent of the facilities. Also, extensive recreational development and other riverbank installations may exist which are not show in navigation charts. Vessel operators are encouraged to operate in a manner to preclude damage and/or destruction of these facilities during periods of increased river levels.

Navigation charts for the KANAWHA RIVER, within the limits of the HUNTINGTON DISTRICT, are on sale at the Corps of Engineers, Huntington, WV at a price of \$8.00 per set , plus postage. Orders for charts submitted by mail should be accompanied by check or money order made payable to FAO, U.S. Army. North Central Division

Notices to Navigation Interests, containing data on channel conditions and location of dredges, are issued as occasions demand. Names of pilots, and others concerned, are placed on mailing list to receive copies of these notice, upon request to the Corps of Engineers, 502 8th Street, Huntington WV 25701-2070.

Charts covering the section of the Ohio River, within the limits of the Engineers Districts, are as follows:

Pittsburgh District, Charts 172-198, incl. Price \$8.00, plus postage
Huntington District, 108-172, incl. Price \$10.00, plus postage.
Louisville District, Charts 1-108, incl. Price \$12.00, plus postage.

MILE POINTS

Mile points are shown on the charts at one mile intervals, with figures designating mileage above mouth of the Kanawha River at Point Pleasant, WV

BUOYS

Buoys used to mark channels in the Mississippi River system conform to the standard lateral system of buoyage in the United States. All buoys are equipped with reflectors; buoys on the left descending side of the channel reflect red; buoys on the right descending side of the channel reflect green.

GAGES

Data for gages are shown at gage locations or on Dam Elevation Views.

DIKES

Plus figures on dikes show height of dike, in feet, above project pool level. Minus figures show depth, in feet on top of dike at project pool level.

LOCKS AND DAMS

A plan view of each of the Locks and elevation view of the Locks and Dams is shown on the back of the chart preceding each of the structures. The plan view of the locks shows location of floating mooring bits, wall ladders, pull chains for recreational craft, and distances inside chambers and on the upper and lower guide walls. The elevation view shows the height of the highest fixed points on the various parts of the Locks and Dams, in feet, above the zero of the upper gage except as otherwise noted.

VERTICAL CLEARANCE

Vertical clearance under bridges and aerial crossings are shown on the respective charts at project pool stage, and at 1861, 1878, 1913 or 1937 high water stages.

Existing clearances may be determined at open river stages, with reasonable accuracy, by method outlines in "example" below:

EXAMPLE: St. Albans, Nitro Hwy.
Bridge, St. Albans, WV.

Upper Gage Winfield Dam:	
1861 H.W. reading	34.45
Existing reading	28.20
Difference	6.25
St. Albans, Nitro Hwy. Bridge:	
1861 H.W. clearance	29.50
Existing clearance	35.75

TABLE
H.W. GAGE READINGS

Upper Gage	Reading
Gallipolis Dam	***46.8
Winfield Dam	**34.45
Marmet Dam	*37.00
London Dam	**35.40

*1861 **1878 ***1937

GENERAL NOTES
NAVIGATION CHARTS
KANAWHA RIVER
HUNTINGTON DISTRICT

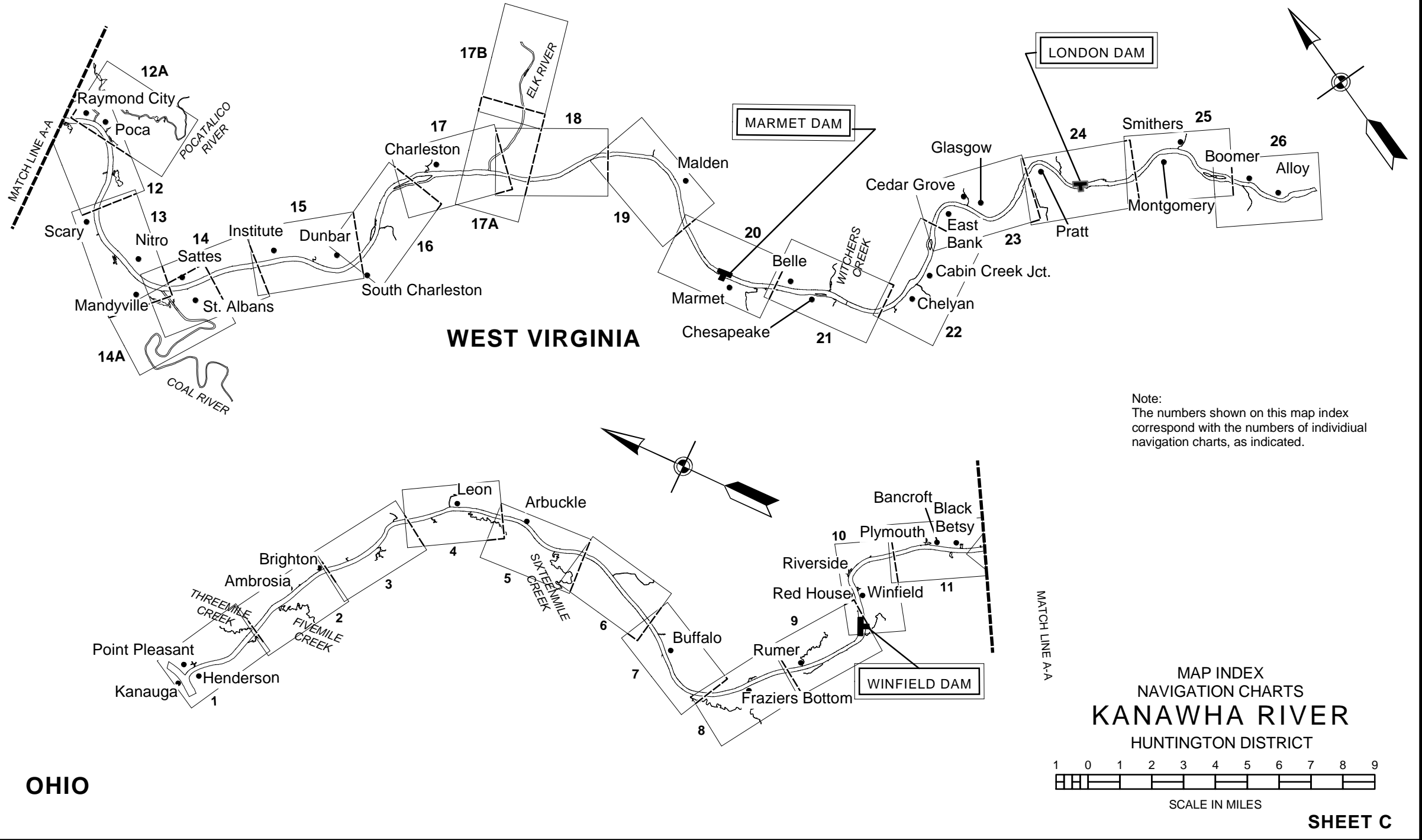


CHART NO.	LOCALITY
	<u>POOL ROBERT C. BYRD DAM</u>
1	Point Pleasant, Henderson and Threemile Creek
2	Fivemile Creek, Ambrosia and Brighton
3	Eightmile Creek, Ninemile Creek and Tenmile Creek
4	Thirteen Creek, Leon and Little Sixteen Creek
5	Arbuckle, Sixteenmil Creek and Arbuckle Creek
6	Putnam County-Mason County Line, Robertsburg and Eighteenmile Creek
7	Cross Creek and Buffalo
8	Five and Twenty Mile Creek, Fraziers Bottom and Little Buffalo Creek
9	Rumer, Buffalo Creek, Hurricane Creek and Eleanor
	<u>POOL WINFIELD DAM</u>
9	Winfield Dam
10	Winfield, Red House, Riverside and Little Guano Creek

CHART NO.	LOCALITY
12	Bills Creek, Raymond City, Pocatlico River, Poca, Linbarger Creek and Blake Creek
13	Scary Creek, Nitro, Gallatin Branch, Putnam County-Kanawha County Line, Mandyville and Coal River
14	Sattes, St. Albans and Two and Three-Quarter Creek
15	Institute
16	Dunbar, South Charleston, Wilson Island, Davis Creek and Blaines Island
17	Blaines Island, TwomileCreek, Charleston and Elk Creek
18	Charleston
19	Campbells Creek, Port Amherst, South Malden, Malden and Levi
20	Dupont City
	<u>POOL MARMET DAM</u>
20	Marmet Dam, Marmet and Lens Creek
21	Belle, Witchers Island, Witchers Creek and Fields Creek
22	Slaughters Creek, Chelyan, Cabin Creek, Cabin Creek Junction, Shrewsbury, Coalburg, Watsons Island and Monarch

CHART NO.	LOCALITY
24	Pratt, Hugheston and London
	<u>POOL LONDON DAM</u>
24	London Dam and Handley
25	Morris Creek, Kanawha County-Fayette County Line, Montgomery, Smithers Creek, Smithers, Oakland, Longacre and Wheeler Islands
26	Wheeler Islands, Boomer. Armstrong Creek, Alloy and Head of Navigation
	<u>KANAWHA RIVER TIRBUTARY STREAMS</u>
12A	Pocatlico River
13A	Coal River
17A, 17B	Elk River

TABULAR INDEX
NAVIGATION CHARTS
KANAWHA RIVER
HUNTINGTON DISTRICT

REGULATIONS
PRESCRIBED BY THE SECRETARY OF THE ARMY FOR THE
OHIO AND MISSISSIPPI RIVERS, ABOVE CAIRO, ILL., AND THEIR TRIBUTARIES;
USE, ADMINISTRATION AND NAVIGATION

THE LAW

Section 7 of the River and Harbor Act of August 8, 1917, provides as follows:

"That it shall be the duty of the Secretary of War to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property, or of operations of the United States in channel improvement, covering all matters not specifically delegated by law to some other executive department. Such regulations shall be posted, in conspicuous and appropriate places, for the information of the public; and every person and every corporation which shall violate such regulations shall be deemed guilty of a misdemeanor and, on conviction thereof in any district court of the United States within whose territorial jurisdiction such offense may have been committed, shall be punished by a fine not exceeding \$500, or by imprisonment (in the case of a natural person) not exceeding six months, in the discretion of the court."

In pursuance of the law above quoted, the following regulations were prescribed to govern the use, administration, and navigation of the Ohio River above Cairo, Ill., and its tributaries.

207.300 Ohio River, above Cairo, Ill., and their tributaries; use, administration, and navigation.

(a) Authority of Lockmasters. The lockmaster shall be charged with the immediate control and management of the lock, and of the area set aside as the lock area, including the lock approach channels. He shall see that all laws, rules, and regulations for the use of the lock and lock area are duly complied with, to which end he is authorized to give all necessary orders and directions in accordance therewith, both to employees of the Government and to any and every person within the limits of the lock or lock area, whether navigating the lock or not. No one shall cause any movement of any vessel, boat, or other floating thing in the lock or approaches except by or under the direction of the lockmaster or his assistants. In the event of an emergency, the lockmaster may depart from these regulations as he deems necessary. The lockmasters shall also be charged with the control and management of Federally constructed mooring facilities.

(b) Safety Rules for Vessels Using Navigation Locks. The following safety rules are hereby prescribed for vessels in the locking process, including the act of approaching or departing a lock:

(1) Tows with Flammable or Hazardous Cargo Barges, Loaded or Empty.

(i) Stripping barges or transferring cargo is prohibited.

(ii) All hatches on barges used to transport flammable or hazardous materials shall be closed and latched, except those barges carrying a gas-free certificate.

(iii) Spark-proof protective rubbing fenders ("possums") shall be used.

(2) All Vessels.

(i) Leaking vessels may be excluded from locks until they have been repaired to the satisfaction of the lockmaster.

(ii) Smoking, open flames, and chipping or other spark-producing activities are prohibited on deck during the locking cycle.

(iii) Painting will not be permitted in the lock chamber during the locking cycle.

(iv) Tow speeds shall be reduced to a rate of travel such that the tow can be stopped by checking should mechanical difficulties develop. Pilots should check with the individual lockmasters concerning prevailing conditions. It is also recommended that pilots check their ability to reverse their energies prior to beginning an approach. Engines shall not be turned off in the lock until the tow has stopped and been made fast.

(v) U.S. Coast Guard Regulations require all vessels to have on board life saving devices for prevention of drowning. All crew members of vessels required to carry work vests (life jackets) shall wear them during a lockage, except those persons in an area enclosed with a handrail or other device which would reasonably preclude the possibility of falling overboard. All deckhands handling lines during locking procedures shall wear a life jacket. Vessels not required by Coast Guard Regulations to have work vests aboard shall have at least the prescribed life saving devices, located for ready access and use if needed. The lockmaster may refuse lockage to any vessel which fails to conform to the above.

(c) Reporting of Navigation Incidents. In furtherance of increased safety on waterways the following safety rules are hereby prescribed for all navigation interests:

(1) Any incident resulting in uncontrolled barges shall immediately be reported to the nearest lock. The report shall include information as to the number of loose barges, their cargo, and the time and location where they broke loose. The lockmaster or locks shall be kept informed of the progress being made in bringing the barges under control so that he can initiate whatever actions may be warranted.

(2) Whenever barges are temporarily moored at other than commercial terminals or established fleeting areas, and their breaking away could endanger a lock, the nearest lock shall be so notified, preferably the downstream lock.

(3) Sunken or sinking barges shall be reported to the nearest lock both downstream and upstream of the location in order that other traffic passing these points may be advised of the hazards.

(4) In the event of an oil spill, notify the nearest lock downstream, specifying the time and location of the incident, type of oil, amount of spill, and what recovery or controlling measures are being employed.

(5) Any other activity on the waterways that could conceivably endanger navigation or a navigation structure shall be reported to the nearest lock.

(6) Whenever it is necessary to report an incident involving uncontrolled, sunken or sinking barges, the cargo in the barges shall be accurately identified.

(d) Precedence at Locks.

(1) The vessel arriving first at a lock shall normally be first to lock through, but precedence shall be given to vessels belonging to the United States. Licensed commercial passenger vessels operating on a published schedule or regularly operating in the "for hire" trade shall have precedence over cargo tows and like craft. Commercial cargo tows shall have precedence over recreational craft, except as described in paragraph (f).

(2) Arrival posts or markers may be established above and /or below the locks. Vessels arriving at or opposite such posts or markers will be considered as having arrived at the locks within the meaning of this paragraph. Precedence may be established visually or by radio communication. The lockmaster may prescribe such departure from the normal order of precedence as in his judgment is warranted to achieve best lock utilization.

(e) Unnecessary Delay at Locks. Masters and pilots must use every precaution to prevent unnecessary delay in entering or leaving locks. Vessels failing to enter locks with reasonable promptness when signalled to do so shall lose their turn. Rearranging or switching of barges in the locks or in approaches is prohibited unless approved or directed by the lockmaster. This is not meant to curtail "jackknifing" or set-overs where normally practiced.

(f) Lockage of Recreation Craft.

In order to fully utilize the capacity of the lock, the lockage of recreational craft shall be expedited by locking them through with commercial craft, provided that both parties agree to joint use of the chamber. When recreational craft are locked simultaneously with commercial tows, the lockmaster will direct, whenever practicable, that the recreational craft enter the lock and depart while the tow is secured in the lock. Recreational craft will not be locked through with vessels carrying volatile cargoes or other substances likely to emit toxic or explosive vapors. If the lockage of recreational craft can not be accomplished within the time required for three other lockages, a separate lockage of recreational craft shall be made. Recreational craft operators are advised that many locks have a pull chain located at each end of the lock which signals the lockmaster that lockage is desired.

(g) Simultaneous Lockage of Tows with Dangerous Cargoes.

Simultaneous lockage of other tows with tows carrying dangerous cargoes or containing flammable vapors normally will only be permitted when there is agreement between the lockmaster and both vessel masters that the simultaneous lockage can be executed safely. He shall make a separate decision each time such action seems safe and appropriate, provided:

(1) The first vessel or tow in and the last vessel or tow out are secured before the other enters or leaves.

(2) Any vessel or tow carrying dangerous cargoes is not leaking.

(3) All masters involved have agreed to the joint use of the lock chamber.

(h) Stations While Awaiting Lockage. Vessels awaiting their turn to lock shall remain sufficiently clear of the structure to allow unobstructed departure for the vessel leaving the lock. However, to the extent practicable under the prevailing conditions, vessels and tows shall position themselves so as to minimize approach time when signaled to do so.

(i) Stations While Awaiting Access Through Navigable Pass. When navigable dams are up or are in the process of being raised or lowered, vessels desiring to use the pass shall wait outside the limits of the approach points unless authorized otherwise by the lockmaster.

(j) Signals. Signals from vessels shall ordinarily be by whistle; signals from locks to vessels shall be by whistle, another sound devise, or visual means. When a whistle is used, long blasts of the whistle shall not exceed 10 seconds and short blasts of the whistle shall not exceed 3 seconds. Where a lock is not provided with a sound or visual signal installation, the lockmaster will indicate by voice or by the wave of a hand when the vessels may enter or leave the lock. Vessels must approach the locks with caution and shall not enter nor leave the lock until signaled to do so by the lockmaster.

The following lockage signals are prescribed:

(1) Sound Signals by Means of a Whistle. These signals apply at either a single lock or twin locks.

(i) Vessels desiring lockage shall on approaching a lock give the following signals at a distance of not more than one mile from the lock:

(a) If a single lockage only is required: One long blast of the whistle followed by one short blast.

(b) If a double lockage is required: One long blast of the whistle followed by two short blasts.

(ii) When the lock is ready for entrance, the lock will give the following signals:

(a) One long blast of the whistle indicates permission to enter the lock chamber in the case of a single lock or to enter the landward chamber in the case of twin locks.

(b) Two long blasts of the whistle indicates permission to enter the riverward chamber in the case of twin locks.

(iii) Permission to leave the locks will be indicated by the following signals given by the lock:

(a) One short blast of the whistle indicates permission to leave the lock chamber in the case of a single lock or to leave the landward chamber in the case of twin locks.

(b) Two short blasts of the whistle indicates permission to leave the riverward chamber in the case of twin locks.

(iv) Four or more short blasts of the lock whistle delivered in rapid succession will be used as a means of attracting attention, to indicate caution, and to signal danger. This signal will be used to attract the attention of the captain and crews of vessels using or approaching the lock or navigating in its vicinity and to indicate that something unusual involving or requiring special caution is happening or is about to take place. When this signal is given by the lock, the captains and crews of vessels in the vicinity shall immediately become on the alert to determine the reason for the signal and shall take the necessary steps to cope with the situation.

(2) Lock Signal Lights. At locks where density of traffic or other local conditions make it advisable, the sound signals from the lock will be supplemented by signal lights. Flashing lights (showing a one-second flash followed by a two-second eclipse) will be located on or near each end of the land wall to control use of a single lock or of the landward lock of double locks. In addition, at double locks, interrupted flashing lights (showing a one-second flash, a one-second eclipse and a one-second flash, followed by a three-second eclipse) will be located on or near each end of the intermediate wall to control use of the riverward lock. Navigation will be governed as follows:

Red Light. Lock cannot be made ready immediately. Vessel shall stand clear.

Amber Light. Lock is being made ready. Vessel may approach but under full control.

Green Light. Lock is ready for entrance.

Green and Amber. Lock is ready for entrance but gates cannot be recessed completely. Vessel may enter under full control and with extreme caution.

REGULATIONS (Continued)

(3) Radio Communications. VHF-FM radios, operating in the FCC authorized Maritime Band, have been installed at all operational locks. Radio contact may be made by any vessel desiring passage. Commercial tows are especially requested to make contact at least one half hour before arrival in order that the pilot may be informed of current river and traffic conditions that may affect the safe passage of his tow.

All locks monitor 156.8 MHz (Ch.16) and 156.65 MHz (Ch.13) and can work 156.65 MHz (Ch.13) and 156.7 MHz (Ch.14) Ch.16 is the authorized call, reply and distress frequency, and locks are not permitted to work on this frequency except in an emergency involving the risk of immediate loss of life or property. Vessels may call and work Ch.13, without switching, but are cautioned that vessel to lock traffic must not interrupt or delay Bridge to Bridge traffic which has priority at all times.

(k) Rafts. Rafts to be locked through shall be moored in such manner as not to obstruct the entrance of the lock and if to be locked in sections, shall be brought to the lock as directed by the lockmaster. After passing the lock the sections shall be reassembled at such distance beyond the lock as not to interfere with other vessels.

(l) Entrance to and Exit from Locks. In case two or more boats or tows are to enter for the same lockage, their order of entry shall be determined by the lockmaster. Except as directed by the lockmaster, no boat shall pass another in the lock. In no case will boats be permitted to enter or leave the locks until directed to do so by the lockmaster. The sides of all craft passing through any lock shall be free from projections of any kind which might injure the lock walls. All vessels shall be provided with suitable fenders, and shall be used to protect the lock and guide walls until it has cleared the lock and guide walls.

(m) Mooring.

(1) At Locks.

(i) All vessels when in the locks shall be moored as directed by the lockmaster. Vessels shall be moored with bow and stern lines leading in opposite directions to prevent the vessel from "running" in the lock. All vessels will have one additional line available on the head of the tow for emergency use. The pilothouse shall be attended by qualified personnel during the entire locking procedure.

When the vessel is securely moored, the pilot shall not cause movement of the propellers except in emergency or unless directed by the lockmaster. Tying to lock ladders is strictly prohibited.

(ii) Mooring of unattended or nonpropelled vessels or small craft at the upper or lower channel approaches will not be permitted within 1200 feet of the lock.

(2) Outside of Locks.

(i) No vessel or other craft shall regularly or permanently moor in any reach of a navigation channel. The approximate centerline of such channels are marked as the sailing line on Corps of Engineers' navigation charts. Nor shall any floating craft, except in an emergency, moor in any narrow or hazardous section of the waterway. Furthermore, all vessels or other craft are prohibited from regularly or permanently mooring in any section of navigable waterways which are congested with commercial facilities or traffic unless it is moored at facilities approved by the Secretary of the Army or his authorized representative. The limits of the congested areas shall be marked on Corps of Engineers' navigation charts. However, the District Engineer may authorize in writing exceptions to any of the above if, in his judgment, such mooring would not adversely affect navigation and anchorage.

(ii) No vessel or other craft shall be moored to railroad tracks, to riverbanks in the vicinity of railroad tracks when such mooring threatens the safety of equipment using tracks, to telephone poles or power poles, or to bridges or similar structures used by the public.

(iii) Except in case of great emergency, no vessel or craft shall anchor over revetted banks of the river, and no floating plant other than launches and similar small craft shall land against banks protected by revetment except a regular commercial landings. In all cases, every precaution to avoid damage to the revetment works shall be exercised. The construction of log rafts along matted or paved banks or the tying up and landing of log rafts against such banks shall be performed in such a manner as to cause no damage to the mattress work or bank paving. Generally, mattress work extends out into the river 600 feet from the low water line.

(iv) Any vessel utilizing a federally constructed mooring facility (e.g., cells, buoys, anchor rings) at the points designated on the current issue of the Corps' navigation charts shall advise the

lockmaster at the nearest lock that from point by the most expeditious means.

(n) Draft of Vessels. No vessel shall attempt to enter a lock unless its draft is at least three inches less than the least depth of water over the guard sills, or over the gate sill if there be no guard sills. Information concerning controlling depth over sills can be obtained from the lockmaster at each lock or by inquiry at the office of the district engineer of the district in which the lock is located.

(o) Handling Machinery. No one but employees of the United States shall move any lock machinery except as directed by the lockmaster. Tampering or meddling with the machinery or other parts of the lock is strictly forbidden.

(p) Refuse in Locks. Placing or discharging refuse of any description into the lock, on lock walls or esplanade, canal or canal bank is prohibited.

(q) Damage to Locks or Other Work. To avoid damage to plant and structures connected with the construction or repair of locks and dams, vessels passing structures in the process of construction or repair shall reduce their speed and navigate with special caution while in the vicinity of such work. The restrictions and admonitions contained in these regulations shall not affect the liability of the owners and operators of floating craft for any damage to locks or other structures caused by the operation of such craft.

(r) Trespass on Lock Property. Trespass on locks or dams or other United States property pertaining to the locks or dams is strictly prohibited except in those areas specifically permitted. Parties committing any injury to the locks or dams or to any part thereof will be responsible therefor. Any person committing a willful injury to any United States property will be prosecuted. No fishing will be permitted from lock walls, guide walls, or guard walls of any lock or from any dam except in areas designated and posted by the responsible District Engineer as fishing areas. Personnel from commercial and recreational craft will be allowed on the lock structure for legitimate business reasons; e.g., crew changes, emergency phone calls, etc.

(s) Restricted Areas at Locks and Dams. All waters immediately above and below each dam, as posted by the respective District Engineers, are hereby designated as restricted areas. No vessel

or other floating craft shall enter any such restricted area at any time. The limits of the restricted areas at each dam will be determined by the responsible District Engineer and marked by signs and /or flashing red lights installed in conspicuous and appropriate places.

(t) Statistical Information.

(1) Masters of vessels shall furnish to the lockmaster such statistics of passengers or cargo as may be requested.

(2) The owners or masters of vessels sunk in the navigable waters of the United States shall provide the appropriate District Engineer with a copy of the sunken vessel report furnished to the U.S. Coast Guard Marine Inspection Office in accordance with Code of Federal Regulations Title 33 Subpart 64.10-1.

(u) Operations during High Water and Floods in Designated Vulnerable Areas. Vessels operating on these waters during periods when river stages exceed the level of "ordinary high water," as designated on Corps of Engineers' navigation charts, shall exercise reasonable care to minimize the effects of their bow waves and propeller washes on river banks; submerged structures or habitations; terrestrial growth such as trees and bushes; and manmade amenities that may be present. Vessels shall operate carefully when passing close to levees and other flood protection works, and shall observe minimum distances from banks which may be prescribe from time to time in Notices to Navigation Interests. Pilots should exercise particular care not to direct propeller wash at river banks, levees, revetments, structures or other appurtenances subject to damage from wave action.

(v) Navigation Lights for Use at All Locks and Dams.

(1) At locks at all fixed dams and at locks at all movable dams when the dams are up so that there is no navigable pass through the dam, the following navigation lights will be displayed during hours of darkness.

(a) Three green lights visible through an arc of 360° arranged in a vertical line on the upstream end of the river (guard) wall unless the intermediate wall extends farther upstream. In the latter case, the lights will be placed on the upstream end of the intermediate wall.

(b) Two green lights visible through an arc of 360° arranged in a vertical line on the downstream end of the river (guard) wall unless the intermediate wall extends farther downstream. In the

latter case, the lights will be placed on the downstream end of the intermediate wall.

(c) A single red light, visible through an arc of 360° on each end (upstream and downstream) of the land (guide) wall.

(2) At movable dams when the dam has been lowered or partly lowered so that there is an unobstructed navigable pass through the dam, the navigation lights indicated in the following paragraphs will be displayed during hours of darkness until lock walls and weir piers are awash.

(a) Three red lights visible through an arc of 360° arranged in a vertical line on the upstream end of the river (guard) wall.

(b) Two red lights visible through an arc of 360° arranged in a vertical line on the downstream end of the river (guard) wall.

(c) A single red light visible through an arc of 360° on each end (upstream and downstream) of the land (guide) wall.

(3) After lock walls and weir piers are awash they will be marked as prescribed in paragraph (x) below.

(4) If one or more bear traps or weirs are open or partially open, and may cause a set in current conditions at the upper approach to the locks, this fact will be indicated by displaying a white circular disk 5 feet in diameter, on or near the light support on the upstream end of the land (guide) wall during the hours of daylight, and will be indicated during hours of darkness by displaying a white (amber) light vertically under and 5 feet below the red light on the upstream end of the land (guide) wall.

(x) Buoys at Movable Dams.

(1) Whenever the river (guard) wall of the lock and any portion of the dam are awash, and until covered by a depth of water equal to the project depth, the limits of the navigable pass through the dam will be marked by buoys located at the upstream and downstream ends of the river (guard) wall, and by a single buoy over the end or ends of the portion or portions of the dam adjacent to the navigable pass over which project depth is not available. A red nun-type buoy will be used for such structures located on the left-hand side (facing downstream) of the river and a green can-type buoy for such structures located on the right-hand side. Buoys will be lighted, if practicable.

(2) Where powerhouses or other substantial structures projecting considerably above the level of the lock wall are located on the river (guard) wall, a single red light located on top of one of these structures may be used instead of river wall buoys prescribed above until these structures are awash, after which they will be marked by a buoy of appropriate type and color (red nun or green can buoy) until covered by a depth of water equal to the project depth. Buoys will be lighted, if practicable.

(y) Vessels to Carry Regulations. A copy of these regulations shall be kept at all times on board each vessel regularly engaged in navigating the rivers to which these regulation apply. Copies may be obtained from any lock office or District Engineer's office on request. Masters of such vessels are encouraged to have on board copies of the current edition of appropriate navigation charts.

NOTE: These regulations are those in effect 31 July 1975.

EXTRACT FROM SECTIONS 15 AND 16 OF THE RIVER AND HARBOR ACT OF 1899

SECTION 15. That it shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or craft; or to sink, or permit or cause to be sunk, vessels or other craft in navigable channels; or to float loose timber and logs, or to float what is known as sack rafts of timber and logs in streams or channels actually navigated by steamboats in such manner as to obstruct, empede, or endanger navigation. And whenever a vessel, raft, or other craft is wrecked and sunk in a navigable channel, it shall be the duty of the owner, lessee, or operator of such sunken craft to immediately mark it with a buoy or beacon during the day and a lighted lantern at night, and to maintain such marks until the sunken craft is removed or abandoned, and the neglect or failure of the said owner, lessee, or operator so to do shall be unlawful; and it shall be the duty of the owner, lessee, or operator of such sunken craft to commence the immediate removal of the same, and prosecute such removal dilligently, and failure to do so shall be considered as an abandonment of such craft, and subject the same to removal by the United States as hereinafter provided for (30 Stat. 1152; 33 U.S.C. § 409).

SECTION 16. That every person and every corporation that shall violate, or that shall knowingly aid, abet, authorize, or instigate a violation of the provisions of sections thirteen, fourteen, and fifteen of this Act shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding twenty-five hundred dollars nor less than five hundred dollars, or by imprisonment (in the case of a natural person) for not less than thirty days nor more than one year, or by both such fine and imprisonment, in the discreation of the court, one-half of said fine to be paid to the person or persons giving information which shall lead to conviction (30 Stat. 1153; 33 U.S.C. § 411). And any and every master, pilot, and engineer, or person or persons acting in such capacity, respectively, on board of any boat or vessel who shall knowingly engage in towing any scow, boat, or vessel loaded with any material specified in section thirteen of this Act to any point or place or deposit or discharge in any harbor or navigable water, elsewhere than within the limits defined and permitted by the Secretary of War, or who shall willfully injure or destroy any work of the United States contemplated in section fourteen of this Act, or who shall willfully obstruct the channel of any waterway in the manner contemplated in section fifteen of this Act, shall be deemed guilty of a violation of this Act, and shall upon conviction be punished as hereinbefore provided in this section, and shall also have his license revoked or suspended for a term to be fixed by the judge before whom tried and convicted. And any boat, vessel, scow, raft, or other craft used or employed in violating any of the provisions of sections thirteen, fourteen, and fifteen of this Act shall be liable for the pecuniary penalties specified in this section, and in addition thereto for the amount of the damages done by said boat, vessel, scow, raft, or other craft, which latter sum of the harbor or or waterway in which the damage occurred, and said boat, vessel, scow, raft, or other craft may be proceeded against summarily by way of libel in any district court of the United States having jurisdiction thereof (30 Stat. 1153; 33 U.S.C. § 412).